

**“English translation of the amended sheets of International Preliminary
Examination Report”**

CLAIMS

1. A device for holding an object under a vacuum, this device comprising a leak tight cavity (16) that contains the object (2) and in which the vacuum is created, this cavity being delimited by a first support
5 (4), for which a first face forms the bottom of the cavity, and by a second support (8) that is fixed to this first face so as to be leak tight, the device also comprising a getter (22) designed to trap gases that could be located in the cavity,
- 10 this device being characterised in that the getter (22) is placed outside the cavity (16) and is contained in a leak tight housing (18) connected to this cavity through at least one leak tight passage (26), this leak tight passage passing through the first support, and in
15 that the housing (18) is formed in a second face of the first support (4) opposite the first face, and the leak tight passage (26) is formed through the first support (4) to connect the housing (18) to the cavity (16).
- 20 2. Device according to claim 1, in which the first face of the first support (4) carries the object (2).
- 25 3. Device according to claim 1, in which the first face of the first support (4) carries the object (2), the object being an uncooled infrared radiation emitter or receiver, or a set of such emitters or receivers, and the second support (8) is capable of allowing infrared radiation (R) to pass through.

ART 34 ANDT

**"English translation of the amended sheets of International Preliminary
Examination Report"**

4. Device according to any one of claims 1 to 3,
in which the housing (18) is hermetically sealed by at
least one layer (24) of leak tight material.

5 5. Device according to any one of claim 1 to 4, in
which the walls of the housing (18) are preferably
covered by at least one layer (20) protecting the first
support (4) from the getter (22).

10 6. Device according to any one of claims 1 to 5,
in which this protective layer (20) is made of a
material chosen from among SiO, SiN and Si₃N₄.

15 7. Device according to any one of claims 1 to 6,
in which the getter (22) is made from a material chosen
from among titanium, molybdenum, barium, tantalum,
zirconium, iron and vanadium.

20 8. Process for making the device according to any
one of claims 1 to 7, in which:

- the object (2) is formed on the first face of
the first support (4),
- the housing (18) is formed in the second face of
this first support (4),
- 25 - the getter (22) is formed in this housing,
- the getter is hermetically sealed in this
housing,
- the passage (26) is formed through the first
support,
- 30 - the assembly thus obtained is put under a
vacuum,

ART 34 ANDT

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Examination Report"**

- the second support (8) is fixed to the first face of the first support in a leak tight manner, under a vacuum, and
- the getter (22) is activated.

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9. Process for making the device according to any one of claims 1 to 7, in which:

- the object (2) is formed on the first face of the first support (4),
- 10 - the housing (18) is formed in the second face of this first support (4),
- the getter (22) is formed in this housing,
- the passage (26) is formed through the first support (4),
- 15 - the second support (8) is fixed to the first face of the first support in a leak tight manner, under any type of atmosphere,
- the assembly thus obtained is put under a vacuum by pumping through the getter and the passage,
- 20 - the getter (22) is hermetically sealed in the housing (18), and
- the getter (22) is activated.

10. Process for making the device according to
25 claim 1, in which the object is a component comprising an uncooled infrared radiation emitter or receiver, or a plurality of such components, the second support (8) possibly allowing infrared radiation (R) to pass, a read circuit being associated with this component or
30 with this plurality of such components and formed on the first support, and in which:

ART 34 AMDT

**"English translation of the amended sheets of International Preliminary
Examination Report"**

- the housing (18) is formed in the second face of the first support (4),
- the read circuit is formed and the getter (22) is formed in the housing during the initial steps of formation of the read circuit, these initial steps resisting high temperatures, but before the final steps for formation of the read circuit,
- the object (2) is formed on the first face of the first support,
- the getter is hermetically sealed in the housing,
- the passage (26) is formed through the first support,
- the assembly thus obtained is put under a vacuum,
- the second support (8) is fixed to the first face of the first support in a leak tight manner, under a vacuum, and
- the getter (22) is activated.

11. Process for making the device according to claim 1, in which the object is a component comprising an uncooled infrared radiation emitter or receiver, or a plurality of such components, the second support (8) allowing infrared radiation (R) to pass through, a read circuit being associated with this component or with this plurality of such components and formed on the first support, and in which:

- the housing (18) is formed in the second face of the first support (4),

ART 34 AMDT

**“English translation of the amended sheets of International Preliminary
Examination Report”**

- the read circuit is formed and the getter (22) is formed in the housing during the initial steps of formation of the read circuit, these initial steps resisting high temperatures, but before the final steps for formation of the read circuit,
- the object (2) is formed on the first face of the first support,
- the passage (26) is formed through the first support (4),
- the second support (8) is fixed to the first face of the first support in a leak tight manner, under any type of atmosphere,
- the assembly thus obtained is put under a vacuum by pumping through the getter and the passage,
- the getter (22) is hermetically sealed in the housing (18), and
- the getter (22) is activated.

ART 34 AMDT